PRINCETON INTEGRATIVE HEALTH

Fish and Toxins: Safe Food Guidelines

One of the healthiest food choices is fish. Besides being a source of low-fat and high-quality protein, it is a rich source of vital nutrients such as vitamin D—a nutrient that many people must supplement because of deficiency. Fish is also rich in calcium and phosphorus, as well as other minerals such as iron, zinc, iodine, magnesium, and potassium.

While fish in general is a healthy food choice, some fish are better choices than others. Fatty types of fish are considered the healthiest, because they are good sources of omega-3 fatty acids and vitamin D. Omega-3 fatty acids are essential for your body and brain to function optimally and are strongly linked to reduced risk of many diseases. Many studies have shown that people who eat fish regularly have a lower risk of heart attacks, strokes, and death from heart disease.

I've heard that some fish contain toxins and heavy metals like mercury. Which types of fish are safe to eat?

Unfortunately, environmental pollutants such as dioxins and polychlorinated biphenyls (PCBs) can accumulate in foods, including fish. Some fish also contain higher levels of heavy metals such as mercury, which can be toxic to the nervous, digestive, and immune systems. Fish that should be avoided because of mercury contamination include: shark, ray, swordfish, marlin, king mackerel, tilefish, orange roughy, ling, and southern bluefin tuna.

Safe fish choices that typically contain lower levels of mercury include:

- Salmon
- Sardines
- Herring
- Trout
- Canned light tuna
- Pollock
- Catfish
- Shellfish such as prawns, lobsters, and oysters

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Not all fish categories are nutritionally equal and sourcing affects nutrient quality and toxin levels. Fish that specifically have lower levels of mercury and are also rich in omega-3s include:

- Atlantic mackerel (also known as purse seine, from Canada and the U.S.)
- Pacific sardines (wild-caught)
- Freshwater coho salmon (farmed in tank systems, from the U.S.)
- Salmon (wild-caught, from Alaska)

How much fish should I eat per week, and what's the bottom line?

As a general rule, the American Heart Association recommends eating fish at least two times per week as part of a healthy diet. Additionally, the Environmental Protection Agency (EPA) makes specific recommendations for fish consumption.

Advisories for fish consumption may be issued for specific groups of people at risk of harm, including:

- Children
- Elderly persons
- Pregnant or nursing individuals
- Those who may become pregnant
- High consumers of fish

The EPA's Recommendations for Fish Consumption:

Do Not Eat	Eat in Moderation (up to 6 ounces per week)	Do Eat (up to 12 ounces per week)
Fish high in mercury: king mackerel, shark, swordfish, tilefish Fish for which a tribal, local, state, or federal advisory has been issued. Check advisories for your area at EPA Fish Advisory Online	Albacore (white) tuna Fish caught from local lakes, rivers, and coastal areas (Note: if eating these fish, do not consume other fish during the week)	Fish low in mercury: canned light tuna, catfish, pollock, salmon, shrimp

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